

What Is Claimed Is:

1. A method for pressure-independent temperature determination using a diaphragm (1) which accommodates a bridge circuit (5) having multiple resistors (6, 7, 8, 9), one resistor pair (10) being situated near the center and one resistor pair (11) being situated at a distance from the center, wherein the resistors (6, 7, 8, 9) are situated on the diaphragm (1) so that tensile elongation Δl of the resistor pair (10) situated near the center corresponds to compression $-\Delta l$ of the resistor pair (11) situated at a distance from the center.
2. The method as recited in Claim 1, wherein the resistor pair (10) situated near the center is provided on the metal diaphragm (1) in the area of the elongation maximums (12) occurring when pressure acts on the metal diaphragm (1).
3. The method as recited in Claim 1, wherein the resistor pair (11) situated at a distance from the center is provided on the metal diaphragm (1) in the area (3) in which compression maximums (13) occur.
4. The method as recited in Claims 2 and 3, wherein the areas of the metal diaphragm (1) where the elongation maximums (12) occur and where the compression maximums (13) occur are determined by the finite elements method.
5. The method as recited in Claim 1, wherein the absolute values ($|\Delta l|$) of the elongations (Δl) and the compressions ($-\Delta l$) of the bridge circuit (5) are identical.

6. The method as recited in Claim 1,
wherein the configuration of the metal diaphragm (1) is
optimized geometrically as part of the FEM simulation.
7. The method as recited in Claim 6,
wherein geometric boundary conditions such as the
diameter of the metal diaphragm (1), the thickness of the
metal diaphragm (1) and the height of the metal diaphragm
(1) are taken into account as part of the FEM simulation.
8. The method as recited in Claim 6,
wherein the nominal pressure acting on metal diaphragm 1
is taken into account as part of the FEM simulation.